

## **REMARKS**

This is a full and timely response to the outstanding final Office Action mailed October 2, 2006. Reconsideration and allowance of the application and pending claims 1-47 are respectfully requested.

### **I. Claim Rejections - 35 U.S.C. § 103(a)**

#### **A. Rejection of Claims 1-47**

Claims 1-47 have been rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over *Majeti et al.* ("Majeti," U.S. Pat. No. 5,534,913) in view of *Kawashima et al.* ("Kawashima," U.S. Pat. No. 5,818,911) in further view of *Goode et al.* ("Goode," U.S. Pat. No. 6,163,272). Applicants respectfully traverse these rejections.

#### **B. Discussion of the Rejection**

The U.S. Patent and Trademark Office ("USPTO") has the burden under section 103 to establish a *prima facie* case of obviousness according to the factual inquiries expressed in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966). The four factual inquires, also expressed in MPEP 2100-116, are as follows:

- (A)Determining the scope and contents of the prior art;
- (B)Ascertaining the differences between the prior art and the claims in issue;
- (C)Resolving the level of ordinary skill in the pertinent art; and
- (D)Evaluating evidence of secondary considerations.

Applicants respectfully submit that a *prima facie* case of obviousness is not established using the art of record.

**Independent Claims 1 and 14**

Claims 1 and 14 are for an apparatus and corresponding method. Claim 1 recites (with emphasis added):

1. In a cable data delivery network for delivering digital data to a host location upon a subscriber initiated request, an apparatus for authenticating that the subscriber is authorized to use said network, said apparatus comprising:

a network manager including at least one database of authorized users and authorized unique identifiers for each of a plurality of authorized data communication devices and a validation agent, said validation agent further comprising:

logic to authorize the subscriber to access a first communications path by comparing first subscriber authentication information received from a data communication device associated with the host location with at least part of the at least one database comprising the authorized users, the first communications path providing at least a portion of connectivity between the host location and a head end of the cable data delivery network; and

*logic to authorize the subscriber to access a second communications path, responsive to the first communications path authorization, by comparing a unique identifier of the data communication device that is received from the data communication device with at least part of the at least one database comprising the authorized unique identifiers for each of the plurality of data communication devices, the second communications path providing at least a portion of connectivity between the host location and the head end of the cable data delivery network.*

Claim 14 recites (with emphasis added):

14. A method of authorizing a subscriber to access a first communications path and a second communications path, the first communications path and the second communications path utilized in conveying data between a head end of a cable data delivery network and a data communication device associated with the subscriber of the cable data delivery network, the method comprising the steps of:

authorizing the subscriber to access the first communications path by comparing first subscriber authentication information received from the data communication device with at least part of at least one database of authorized users, the first communications path providing at least a portion of connectivity between the data communication device and the head end of the cable data delivery network; and

*authorizing the subscriber to access the second communications path, responsive to the first communications path authorization, by a unique identifier of the data communication device that is received from the data communication device with at least part of the at least one database that further includes authorized unique identifiers for each of a plurality of authorized data communication devices*, the second communications path providing at least a portion of connectivity between the data communication device and the head end of the cable data delivery network.

Applicants respectfully submit that *Majeti* in view of *Kawashima* in further view of *Goode* fails to disclose, teach, or suggest at least the above-emphasized claim features. The Office Action (Page 3-4, no emphasis added) alleges that:

*Majeti* also discloses logic to authorize the subscriber to access a second communication path responsive to the first communications path authorization (see Column 9, Lines 37-67 for the system allowing the user to transmit data requiring a higher bandwidth over the CATV network and again Column 8, Lines 58-67 and Column 9, Lines 1-6 for authorizing the subscriber to make [sic] requests), by comparing a unique identifier of the data communication device that is received from the data communications device (see Column 9, Line 48 through Column 10, Line 6 and further note that system of Majeti teaches addressable subscriber devices, therefore identification data is compared in order for the servers and/or headend to know where to transmit the requested data) with at least part of the at least one database (see Column 9, Lines 50-57 for comparing the request information to the information in the database to determine if the CATV will be used to transmit the requested data) comprising the authorized unique identifiers for each of the plurality of data communication devices (see above).

Applicants respectfully disagree. Applicants simply cannot find the features of *authorizing the subscriber to access the second communications path, responsive to the first communications path authorization, by a unique identifier of the data communication device that is received from the data communication device with at least part of the at least one database that further includes authorized unique identifiers for each of a plurality of authorized data communication devices* in *Majeti* or any of the other cited references. In particular *Majeti* does not disclose any form of authorization regarding a subscriber accessing the second communications path.

Additionally, regarding the claimed second “comparing” feature, Applicants respectfully disagree this feature is found in *Majeti*. *Majeti* provides (Column 9, Lines 53-66, emphasis added) as follows:

In view of the substantial amount of data to be transmitted, *the control processor checks its database and determines that bandwidth capacity is available* for the picture information to be transmitted by cable distribution head-end 30N and cable 36. *On determining that sufficient bandwidth can be made available for this request, the control processor transmits command information to router 42 directing; the router to transmit this packet . . .* to the user's customer premise equipment 20.

The database in the above citation appears to be used to determine whether the system in *Majeti* will transmit requested data via cable distribution or a PSTN based on available bandwidth. Thus, it appears that the database referred to above is used by the system to determine whether to transmit data over the cable system, but only based on bandwidth availability and not used for comparison to provide any type of authorization of users to use the cable system.

Additionally, Applicants respectfully disagree with the apparent presumption that “identification data is compared in order for the servers and/or headend to know where to transmit the requested data.” Though *Majeti* does not appear to define the information found in data headers, it appears in *Majeti* (Col. 9, Ln. 40 – Col. 10, Ln. 6) that a user sends a request for information that:

... is transmitted by the PSTN network and arrives at service provider 10A. The service provider analyzes the request and assembles the requested information transmitting a first packet which contains at least a portion of the total requested information along with information contained in the header identifying the total quantity of information to be transmitted to the user in connection with this request. . . . For high definition pictures, a substantial quantity of data, for example, greater than 1 megabyte of data, will be transmitted. . . . the control processor checks its database and determines that bandwidth capacity is available for the picture information to be transmitted by cable distribution head-end 30N and cable 36. On determining that sufficient bandwidth can be made available for this request, the control processor transmits command information to router 42 . . . This information will then be combined with other RF channels and then transmitted over cable 36 to the user's customer premise equipment 20. It should be noted that this system contemplates the cable television network being utilized in a broadcast mode in which all subscribers served by common cable distribution head-end equipment will receive the same information. The information will remain private since it is addressed to a specific user address; other users' packet receiver will not process the information and hence, will not have access to the information.

It is reasonable to assume, based on one having ordinary skill in the art and the above cited section of *Majeti*, that the request for data may contain the IP address of the user, and the IP address of the user might be added to the header or another portion of the data that is to be sent to the user via the cable system without being compared to any database of users for authorizing access to the second communications path.

Thus, the presumption in the Office Action (page 4) that the “identification data is compared in order for the servers and/or headend to know where to transmit the requested

data" is neither supported by the disclosure in *Majeti*, nor necessarily required for the operation of the system.

Finally, the Office Action (pages 5-6, emphasis original) alleges:

Majeti and Kawashima both fail to disclose second subscriber authentication information. In particular Majeti discloses transmitting second identification information to determine if the CATV path will be used to transmit the larger sized data, but no authentication takes place [sic].

Goode discloses a multiple authentication level routine, which in a similar manner to Majeti and transmits a USERID code (in the form of a TID code) to a session manager to be authorized to receive a portion of connectivity (default level of access) to the information server (see Figure 1 and Column 6, Lines 13-21 and Lines 33-36). Goode also provides a second authentication process where the user, if not authorized to access a specific portion of connectivity (restricted movie), must provide subscriber authentication information in the form of a PIN in order to be authorized to use [sic] the second communications path (the path required to receive the movie) (see Column 6, Lines 45-56). The examiner notes that the limitation "communications path" is broad and can be interpreted as a separate communications link to the headend, or different channels provided on the same communications link.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the subscriber communications path authentication system, as taught by Majeti and Kawashima, using the personal identification authentication system with multiple authentication levels, as taught by Goode, for the purpose of managing personal identification numbers and customer authorization within an interactive information distribution system to provide flexible and useful security measures (see Column 1, Lines 51-55 of Goode)).

Applicants respectfully disagree that the modification is obvious and that a PIN is a unique identifier of the data communication device. The PIN number in *Goode* is described (Col 5, ln. 2-6, emphasis added) as:

...Prior to or at the time of the first session being requested, the customer, through his/her set-top terminal, must execute the PIN assignment routine **such that a personal identification number is assigned to at least one person in the household.**

Thus, a PIN number in *Goode* is assigned to at least one person. This feature is simply not the same as comparing a unique identifier of the data communication device as claimed.

Applicants submit that *Majeti* fails to teach all of the above claim elements and neither *Kawashima* nor *Goode* remedy these deficiencies. Therefore, Applicants respectfully request that the rejections of independent claims 1 and 14 be withdrawn.

Because independent claims 1 and 14 are allowable over *Majeti* in view of *Kawashima* in further view of *Goode*, dependent claims 2-13, 15-20, 33-36, and 43-44 are allowable as a matter of law for at least the reason that the dependent claims 2-13, 15-20, 33-36, and 43-44 contain all elements of their respective base claim. See, e.g., *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988).

#### **Independent Claims 21 and 25**

Claims 21 and 25 are for an apparatus and corresponding method. Claim 21 recites (with emphasis added):

21. An apparatus utilized in authorizing a subscriber to access a cable data network at a first level of service and a second level of service, the cable data network providing connectivity between a head end and a data communication device associated with the subscriber, comprising:

logic configured to authorize the subscriber to access the cable data network at the first level of service by comparing first subscriber authentication information received from the data communication device with at least part of at least one database of authorized users; and

*logic configured to authorize the subscriber to access the cable data network at the second level of service responsive to the first level of service authorization by comparing a unique identifier of the data communication device that is received from the data communication device with at least part of the at least one database that further includes authorized unique identifiers for each of a plurality of authorized data communication devices.*

Claim 25 recites (with emphasis added):

25. A method of authorizing a subscriber to access a cable data network at a first level of service and a second level of service, the cable data network providing connectivity between a head end and a data communication device associated with the subscriber, the method comprising the steps of:

authorizing the subscriber to access the cable data network at the first level of service by comparing first subscriber authentication information received from the data communication device with at least part of at least one database; and

*authorizing the subscriber to access the cable data network at the second level of service, responsive to the first level of service authorization, by comparing a unique identifier of the data communication device that is received from the data communication device with at least part of the at least one database that further includes authorized unique identifiers for each of a plurality of authorized data communication devices.*

Applicants respectfully submit that *Majeti* in view of *Kawashima* in further view of *Goode* fails to disclose, teach, or suggest at least the above-emphasized claim features.

The Office Action rejects claims 21 and 25 for the same reasons as claim 1. Therefore, Applicants respectfully traverse the rejection of claims 21 and 25 and request that the rejection of claims 21 and 25 be withdrawn for similar reasons argued for like features with respect to claims 1 and 14 above.

Because independent claims 21 and 25 are allowable over *Majeti* in view of *Kawashima* in further view of *Goode*, dependent claims 22-24, 26-28, 37-40, and 45-46 are allowable as a matter of law.

### **Independent Claim 29**

Claim 29 recites (with emphasis added):

29. A method of logging into a cable data network that has a plurality of levels of service, the method comprising the steps of:

logging into the cable data network at a first level of service by sending first subscriber authentication information from a data communication device associated with a subscriber to at least one validation agent configured to compare the first subscriber authentication information to at least one database of authorized users in order to authorize the subscriber to log into the network at the first service level; and

*logging into the cable data network at a second level of service, responsive to logging into the network at a first level of service by a unique identifier of the data communication device associated with the*

*subscriber to the at least one validation agent, the at least one validation agent further configured to compare the unique identifier of the data communication device to at least one database of authorized unique identifiers for each of a plurality of authorized data communication devices in order to authorize the subscriber to log into the network at the second service level.*

Applicants respectfully submit that *Majeti* in view of *Kawashima* in further view of *Goode* fails to disclose, teach, or suggest at least the above-emphasized claim features.

The Office Action rejects claim 29 for the same reasons as claim 1. Therefore, Applicants respectfully traverse the rejection of claim 29 and request that the rejection of claim be withdrawn for similar reasons argued for like features with respect to claims 1 and 14 above.

Because independent claim 29 are allowable over *Majeti* in view of *Kawashima* in further view of *Goode*, dependent claims 30-32, 41-42, and 47 are allowable as a matter of law.

## **II. Inherency**

On pages 7 and 8 of the Office Action, inherency is alleged with regard to claims 13 and 33, as reproduced below:

... *Majeti* discloses that the second communications path is uni-directional (see Column 2 Lines 50-52 for only transmitting information on the cable network on the downlink, not the uplink, therefore the second communications path (element 36 in Figure, 1 is inherently "uni-directional").

... The examiner notes that if a user is not authorized to use the system, he/she will inherently not be permitted to access the system.

Applicants respectfully disagree. With regard to claim 13, claim 13 recites:

The apparatus of claim 1, wherein the second communications path is uni-directional.

According to well-established Federal case law, “[A]nticipation by inherent disclosure is appropriate only when the reference discloses prior art that must necessarily include the unstated limitation.” *Atofina v. Great Lakes Chemical Corp.*, 441 F.3d 991, 1000 (Fed. Cir. 2006).

*Majeti* (Col. 2, ln. 49 -54, emphasis added) states:

An additional object of the present invention is to provide an intelligent split channel **bridging unit which integrates and controls communications sent on high-speed downlink cable television channels** with lower speed bidirectional information sent to/from users over another media, such as the public switched telephone network.

The Office Action, page 7, alleges that the communications path of the cable television channels is only “for only transmitting information on the cable network on the downlink, not the uplink, therefore the second communications path . . . is inherently “uni-directional.” Applicants respectfully disagree however, because merely stating a function of controlling communications sent on a downlink channel does not inherently make that channel unidirectional. The same channel may be used to send communications in the opposite direction.

With regard to claim 33, claim 33 recites:

The apparatus of claim 1, wherein the data delivery is restrained until authorization is completed.

Applicants respectfully submit that restraining the data delivery until authorization is completed is not the same as a user not being permitted to access the system.

Thus, Applicants respectfully traverse the allegation of inherency with respect to the above-emphasized claim features in the rejection of claims 13 and 33 and respectfully request that the rejection be withdrawn for these reasons in addition to reasons presented above in Section I of the response.

**CONCLUSION**

Applicants respectfully submit that Applicants' pending claims are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. Any other statements in the Office Action that are not explicitly addressed herein are not intended to be admitted. In addition, any and all findings of inherency are traversed as not having been shown to be necessarily present. Furthermore, any and all findings of well-known art and official notice, and similarly interpreted statements, should not be considered well known since the Office Action does not include specific factual findings predicated on sound technical and scientific reasoning to support such conclusions. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

Respectfully submitted,

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